TABLE 3.11 Aquifer and Well Characteristics in Wisconsin
Well characteristics
Aquifer name and description
Depth (ft)
Common May range exceed
Yield (gal/min)
Common May range exceed
Remarks
Principal aquifers:
Sand and gravel aquifer: 30 - 100
Unconsolidated sand and gravel; variable amounts of silt, clay, and organic materials. Thickness 0-600 ft; commonly 50-200 ft. Generally unconfined.
Silurian dolomite aquifer: 50 - 180
Dolomite; some shale. Thickness 0-700 ft; thickest along Lake Michigan. Generally unconfined where shallow; confined where deep or overlain by clay sediments.
Sandstone aquifer: Sandstone, dolomitic sandstone, and dolomite; some siltstone. Thickness 0-2,700 ft thick in south; thickest in southwest. Confined in eastern Wisconsin by Maquoketa Shale; locally confined elsewhere.
Other aquifers:
Precambrian igneous and 50-100
metamorphic rocks; sandstone in northwest. Thickness unknown, but in thousands of feet. Generally unconfined where shallow; confined where deep or overlain by clay sediments.
400 10 - 100 2,000 A well in Janesville was pumped at more than 5,000 gal/min. The water is very hard except in north-central Wisconsin. The median dissolved-solids concentration is 219 mg/L.
450 5-50 200 Important aquifer because it underlies the most densely populated part of Wisconsin. The water is commonly very hard. The median dissolved-solids concentration is 377 mg/L.
50-1,000 2,000
10 - 500 1,000 Yields are commonly proportional to thickness of aquifer open to the well. The water is commonly very hard. The median dissolved-solids concentration is 307 mg/L.
400 0.5 - 10 50 Sandstone in northwest may yield 300 gal/min. Elsewhere yields generally do not exceed 50 gal/min.
SOURCE: U.S. Geological Survey, 1984.